

Patent claims

1. Nucleic acid molecule, **characterized in that**, with respect to at least 10 successive nucleotides of its nucleotide chain, it

(i) is identical to 10 successive nucleotides of the nucleic acid molecules according to a), b), c), d), e), f), g) or h):

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a) of SEQ ID NO 1 5'-GAA AAA GCA TTT GAA GCC AT-3' or

b) of SEQ ID NO 2 5'-GCA ACT TCC GGC TCA GC-3' or

c) of SEQ ID NO 3 5'-TCG AAA AAG CAT TTG AAG CC-3' or

d) of SEQ ID NO 4 5'-GGT CAG AGT GAA GCT CAT GT-3' or

e) of SEQ ID NO 5 5'-CTI TTC ACA TGA GCT TCA CTC TGA
CCR A-3' or

f) of SEQ ID NO 6 5'-CTT TTT CTT TCA CTG GGT TTC CGA
CAT-3' or

g) of SEQ ID NO 7 5'-GAT GAT TTC TTT TTC TTT CAC TGG ATT
TCC AAT AT-3' or

h) of the sequence complementary in each case to a), b), c), d), e), f) and g); or

15 (ii) matches 9 out of 10 successive nucleotides of the nucleic acid molecules according to (a), (b), (c), (d), (e), (f), (g), or (h) or

20 (iii) matches 8 out of 10 successive nucleotides of the nucleic acid molecules according to (a), (b), (c), (d), (e), (f), (g), or (h) or

(iv) is at least 90% homologous to a nucleic acid molecule according to (a), (b), (c), (d), (e),
25 (f), (g), or (h).

2. Nucleic acid molecule according to claim 1,

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characterized by a length common for probes or primers, in particular for a PCR reaction, in particular by a length of from 10 to 250 and preferably of from 15 to 30 nucleotides.

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3. Nucleic acid molecule

a) of SEQ ID NO 1 5'-GAA AAA GCA TTT GAA GCC AT-3' or

b) of SEQ ID NO 2 5'-GCA ACT TCC GGC TCA GC-3' or

c) of SEQ ID NO 3 5'-TCG AAA AAG CAT TTG AAG CC-3' or

d) of SEQ ID NO 4 5'-GGT CAG AGT GAA GCT CAT GT-3' or

e) of SEQ ID NO 5 5'-CTI TTC ACA TGA GCT TCA CTC TGA

CCR A-3' or

f) of SEQ ID NO 6 5'-CTT TTT CTT TCA CTG GGT TTC CGA

CAT-3' or

g) of SEQ ID NO 7 5'-GAT GAT TTC TTT TTC TTT CAC TGG ATT

TCC AAT AT-3' or

10 h) of the sequence complementary in each case to a), b), c), d), e), f) and g).

4. Nucleic acid molecule according to any of the preceding claims, **characterized in that** it is present in single-stranded or double-stranded form.

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5. Nucleic acid molecule according to any of the preceding claims, **characterized in that** it is present

(i) as DNA sequence or

20 (ii) as RNA sequence corresponding to (i) or

(iii) as PNA sequence,

25 where the nucleic acid molecule is modified, where appropriate, in a manner known per se for analytical detection methods, in particular for those based on hybridization and/or amplification.

6. Nucleic acid molecule according to any of the

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preceding claims, **characterized in that** up to 20% of at least 10 successive nucleotides of its nucleotide chain, in particular 1 or 2 nucleotides, have been replaced by analogous building blocks known per se for probes and/or primers, in particular by nucleotides not naturally present in bacteria.

7. Nucleic acid molecule according to any of the preceding claims, **characterized in that** the nucleic acid molecule has been modified or labeled by or additionally by having one or more radioactive groups, colored groups, fluorescent groups, groups for immobilization on a solid phase and/or groups for an indirect or direct reaction, in particular for an enzymatic reaction, in particular with the aid of antibodies, antigens, enzymes and/or substances with affinity to enzymes or enzyme complexes, and/or otherwise modifying or modified groups of a nucleic acid-like structure.

8. Kit for analytical detection methods, in particular for detecting bacteria of the species *Listeria monocytogenes*, **characterized by** one or more nucleic acid molecules according to any of the preceding claims.

9. Use of one or more or nucleic acid molecules according to any of claims 1 to 7 or of a kit according to claim 8 for detecting the presence or absence of bacteria of the species *Listeria monocytogenes*.

10. Use according to claim 9, **characterized in that** a nucleic acid hybridization and/or a nucleic acid amplification are carried out.

11. Use according to claim 10, **characterized in that** for the nucleic acid amplification a polymerase chain reaction is carried out.

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12. Use according to claim 1 (sic), **characterized in**
that the bacteria to be detected are distinguished from
the bacteria not to be detected on the basis of
differences in the genomic DNA and/or RNA in at least
5 one nucleotide position in the region of one of the
nucleic acid molecules according to claim 3.

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